# Ross Petroleum (Scotland) Limited

## **Correspondence address:**

Registered in Scotland Registration Number: SC334323 Registered Office: 28 High Street Nairn IV12 4AU

18 Sutors Gate Nairn IV12 5BW United Kingdom

Nancy M. Morris, Secretary Securities and Exchange Commission 100 F Street, NE Washington, DC 20549-0609 19<sup>th</sup> February, 2008

# CONCEPT RELEASE ON POSSIBLE REVISIONS TO THE DISCLOSURE REQUIREMENTS RELATING TO OIL AND GAS RESERVES

#### File Number S7-29-07

#### Introduction

The Securities and Exchange Commission (SEC) Concept Release on possible revisions to the disclosure requirements relating to oil and gas reserves is timely. The development of a highly-competitive global capital market and the widespread adoption of International Financial Reporting Standards (IFRS) provide appropriate incentives to reviewing critically the type of information that would be most useful to investors in the oil and gas sector.

The Commission has noted the ongoing efforts of the International Accounting Standards Board (IASB), where a Project Team is currently evaluating the options for convergence of accounting and disclosure reporting practices related to all extractive industries (i.e. mining and petroleum). While the Commission has indicated that comments on those matters are not being sought in the context of this Concept Release, it is to be hoped that the Commission will take full account of the beneficial consequences to investors of a revised reserve reporting system that:

- Is consistent between minerals and petroleum, given the use of similar terminology and business processes. This objective has become even more relevant with the development of oil sands, where current SEC reporting standards are completely different depending on the recovery mechanism, despite the ultimate sales product being identical. The current situation is not logical and is clearly unhelpful to investors interested in both the mining and petroleum sectors;
- 2. Recognizes the current developments towards the Harmonization of Fossil Energy and Mineral Resources Terminology as supported by the Society of Petroleum Engineers (SPE), the Committee for Mineral Reserves International Reporting Standards (CRIRSCO), the International Energy (IEA), OPEC, the Russian Federation and many other countries and organizations, under the auspices of the United Nations Economic

Commission for Europe (UNECE); and,

3. Is aligned with the equivalent IFRS. This is perhaps a more difficult objective, given the pace of the IASB project, but nonetheless of critical importance for facilitating a global financial reporting standard.

It should be noted that the similarity between the above text and that of at least one other submission is a consequence of prior discussions and agreement that these three points represent key considerations.

#### **Useful Information**

In determining the type of information that would be most useful to investors, two fundamental issues for which the current disclosure rules fail to provide adequate detail and/or do not align with business processes are outlined below:

1. Reserves only exist as a consequence of a planned or implemented development project. Business decisions reflect commitments to invest in a project (i.e. to implement a development plan, which could be anything from a single onshore well to a multi-billion dollar offshore project), and reserves are the outcome of that investment opportunity. Therefore, there are two very distinct aspects to reserve evaluation: (i) the status/maturity of the project (is it committed, under development, etc.); and, (ii) the range of uncertainty in the recoverable quantities forecast to be produced by the project.

The primary problem with reserve reporting systems that are not explicitly project-based is that the distinction between these two completely different characteristics of project maturity and uncertainty in recoverable volumes is lost, leading to serious complications in interpreting or using such information. This problem would only get worse if probable and possible reserves could also be reported under SEC regulations, but were not distinguished by project status.

Project-based systems have been around for more than 10 years now and represent current industry best practice. The reserve/resource classification system first published by the Norwegian Petroleum Directorate (NPD) in 1997 was a project-based system and provided a key input into the development of the Petroleum Resource Classification and Definitions approved by the Society of Petroleum Engineers (SPE), World Petroleum Council (WPC) and American Association of Petroleum Geologists (AAPG) in 2000. The same principles, including the explicit use of project maturity status categories, were formally adopted into the petroleum version of the United Nations Framework Classification (UNFC) in 2004. Then, in March 2007, the SPE, WPC, AAPG and the Society of Petroleum Evaluation Engineers (SPEE) jointly approved the Petroleum Resources Management System (abbreviated here to SPE-PRMS). SPE-PRMS incorporated the concepts behind these earlier classification systems and explicitly confirmed that it is a project-based classification system.

These classification systems are not simply of academic interest. They are used by companies and governments as the essential basis for the application of portfolio optimization techniques, decision-gate based management processes and national resource management purposes.

The distinction between a project-based system and a field-based system is best illustrated by reference to a large oil and gas field where, due to certain technical uncertainties, a decision is made to proceed with a small oil development (early

production system, EPS) in order to understand the field better before designing and committing to a full-field oil development. The economic viability of the full-field development may even be contingent on the results of the EPS. If the gas cap is of significant size, there is also the potential for a gas development project later in the field's life. There are therefore at least three completely distinct projects on this field, each one at a different stage of maturity, each requiring a separate approval and commitment (decision-making) process and each with a range of estimated recoverable quantities.

Of course, there are fields that are subject to a single development process and, in these cases, the estimated recoverable quantities for the project and for the field are the same. However, it is very common to find that the initial commitment does not include later possible projects, such as an improved recovery scheme, for example.

The solution that the industry has developed, and which is encapsulated in SPE-PRMS, is to first classify the project and then secondly to consider the *range* of recoverable (sales) quantities that are estimated to be attributable to that project. These two facets of project evaluation represent the underlying basis for the two-dimensional SPE-PRMS classification system (see Figure 2-1 in SPE PRMS).

Project classification is usually very straightforward, as may be seen by reference to the project descriptors (see table below, which is extracted from SPE-PRMS). For each project, it is then a matter of estimating the range of recoverable quantities associated with that project. If the *project* satisfies all the criteria for reserves, these are then reflected in the three outcomes/scenarios: proved (1P), proved plus probable (2P), proved plus probable plus possible (3P). If the project does not satisfy the criteria for reserves, the estimated recoverable quantities are documented as contingent resources or prospective resources, depending on whether or not the accumulation can be classified as a discovery.

Project Status (Maturity)	Description
On Production	The development project is currently producing and selling petroleum to market.
Approved for Development	All necessary approvals have been obtained, capital funds have been committed, and implementation of the development project is under way.
Justified for Development	Implementation of the development project is justified on the basis of reasonable forecast commercial conditions at the time of reporting, and there are reasonable expectations that all necessary approvals/contracts will be obtained.
Development Pending	A discovered accumulation where project activities are ongoing to justify commercial development in the foreseeable future.
Development Unclarified or On Hold	A discovered accumulation where project activities are on hold and/or where justification as a commercial development may be subject to significant delay.
Development Not Viable	A discovered accumulation for which there are no current plans to develop or to acquire additional data at the time due to limited production potential.

Note that under SPE-PRMS only the upper three project categories in the table above would have reserves associated with them; the lower three would have contingent resources. External reporting *could* be extended to cover *some* of the contingent resource projects, but clearly it would be very important to identify them separately due to the significant risk that they may not proceed to development.

Making a distinction between project maturity and recovery uncertainty in disclosures not only reflects current industry best practice in business processes, it would also provide investors with the ability to make rational investment decisions in choosing between companies that provide predominantly low risk opportunities and those with higher risk (less mature) investment opportunities.

2. Reserves are, by definition, the summation of a future production forecast up to an economic or contractual limit. By reporting only the summation of the forecast, one of the most valuable pieces of information to investors is lost: the timing of production. In addition, a production forecast, unlike a reserve estimate, is essentially self-regulating due to the annual reconciliation between forecast and actual production. Companies that consistently under or over estimate their near-term production would be readily identifiable to investors.

Some companies already provide production forecasts to analysts, demonstrating the value placed on such information. Investors would be better served if these were presented by all companies in a consistent and comparable format, with the officers of the company taking formal responsibility for such disclosures. Since reserve estimates should be based on forecasts already, no additional work would be required by the companies.

Reporting production forecasts rather than only reserve estimates would provide investors with information that they can actually use to assess the nature of the company, as in short term potential versus long term growth, as well as providing an excellent monitoring tool for the reliability of individual corporate reporting standards.

The following comments are in response to the specific questions as set out in the Concept Release, but draw on the above discussion of "useful information". It should be noted that while I support the principles that underpin SPE-PRMS, I do not consider that simply adopting SPE-PRMS would provide an optimal solution (see answer to Question 3).

#### **Question 1**

Moving to a system based on principles rather than rules has much merit and is very strongly supported. Potential benefits would include:

- 1. Facilitating alignment between minerals and petroleum;
- 2. Allowing the use of non-technical terminology that is generic (i.e. can be applied to any commodity) and which can be easily understood by investors;
- 3. Reporting based on the corporate view (e.g. expected outcome);
- 4. Avoiding reporting obligations that serve no useful business purpose and hence reduce shareholder value.

There also needs to be complete alignment between reporting of estimated recoverable sales quantities and the point at which an asset is first recognized for accounting purposes.

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#### Question 2

Yes, but the primary focus should be on categories of projects (SPE-PRMS refers to these as "sub-classes") rather than categories of reserves and the principal forecast/quantity should reflect the expected outcome from the project rather than an artificially constrained conservative estimate. The current SPE-PRMS sub-classes for reserves, for example, are essentially self-explanatory being: On Production; Approved for Development; and, Justified for Development.

It is not strictly necessary to specify categories of reserves such as probable and possible, provided that the recoverable sales quantities or associated production forecasts are project-based and then classified simply as low, expected and high estimates, as their meaning and relationship is obvious and only limited non-technical principles would be necessary to guide the low and high estimates (which could include probability levels).

This approach would remove a major problem in current SEC reporting (as identified by SEC staff in their website guidance), which is that some registrants interpret Proved to be a conservative (low case) estimate, whereas others consider it to correspond to a best estimate or expected outcome.

It is also worth noting in this context that the SEC regulations allow the mining industry to report both proved and probable reserves, and they have been lobbying to be able to report mineral resources as well (as is widely permitted in other jurisdictions).

#### **Question 3**

The Commission should consider the underlying principles of any new reporting regulations first. There are aspects of the SPE-PRMS that could be adopted, but it would not be appropriate to simply oblige companies to report according to this system. The SPE-PRMS is designed exclusively for petroleum and cannot be used for solid minerals in its current form, so its adoption would fail to achieve a common basis for minerals and petroleum.

The current efforts of the UNECE are particularly relevant in this context, in working towards harmonized global terminology that can be applied in any of the extractive industries.

#### **Question 4**

Yes. It is clear that there is still a wide interpretation about the meaning of "reasonable certainty" despite the guidance of the SEC staff. In addition, it is confusing to define separately proved reserves, proved developed reserves and proved undeveloped reserves, where proved reserves should simply be the sum of proved developed and proved undeveloped reserves. In any event, if a project-based approach is taken, and the focus is on expected sales quantities, the distinction between developed and undeveloped reserves becomes unnecessary.

The reporting basis should reflect the business decision-making process, e.g. whether or not a project has been committed or not, and does not need to consider technological change explicitly. The companies reflect such changes in their decisions by moving projects to a higher maturity level as technological innovations are made.

#### **Question 5**

No. Again, the focus should be on providing investors with information that reflects the business process. The companies decide what data they require to make their project

investment decisions and reporting should not be based on a rule about having to acquire a specific type of data. The key information for investors is related to the maturity of the project, not the volume or type of data that have been collected. Investors need to know if the project is planned, committed, on production, etc.

Trying to specify data requirements has led to the situation of the SEC interpreting its own regulations differently for the deep water Gulf of Mexico from similar geological environments elsewhere in the world. A principles-based approach would help to avoid this type of inconsistency which actually undermines the goal of comparable reporting.

#### **Question 6**

The meaning of "reasonable certainty", especially with the support of the SEC Staff's additional guidelines, would seem to be fairly clear. Nevertheless, it is evident that there remains a wide variation in interpretation. This problem would be fixed by requiring the disclosure of an expected outcome, which also avoids any aggregation problems since an arithmetic summation and a probabilistic summation should generate the same value.

If there was a requirement to report "low" and "high" estimates in addition to an expected outcome, this would require some consideration of probabilistic methods and aggregation issues.

The critical point is that it is *absolutely essential* that if probabilistic methods are to be used, they must be applied on a project basis. Historical field-based analyses, whereby the "upside" case included an increased recovery factor reflecting a *possible* IOR project, for example, distorts the shape of the distribution and increases the low and expected outcomes through a mixing of two quite distinct projects. The committed primary recovery project and the planned IOR project must be evaluated and classified separately, each with its own range of uncertainty in recoverable sales quantities.

#### **Question 7**

A project-based approach would address this issue since it would discriminate between projects that are actually under development from those that are "planned" but not actually firmly committed for the immediate future. The problem with many reported proved undeveloped reserves is that they fall into the latter category. Using project maturity as the primary basis for classification would ensure that this type of undeveloped reserves would be documented as "Justified for Development" or perhaps even "Development Pending", in contrast to those undeveloped reserves that are associated with a project that is "Approved for Development", where all approvals are in place and capital funds have been committed. Investors would then be able to assess the relative risks associated with the different levels of project maturity.

#### **Question 8**

The concept is not required if a project-based approach is adopted together with a requirement that classification is based on reasonable assumptions (see also answer to Question 15).

#### **Question 9**

A company should be able to make its own reasonable assessment of future operating conditions (e.g. costs), but it would generally not be "reasonable" to incorporate assumptions regarding possible future technological developments and/or changes to the legal/fiscal regime.

#### **Question 10**

When the requirement for using year-end prices was introduced, the general price trend was upwards and hence it made complete sense to use this as a standardised conservative basis for reporting. However, with the price volatility since 1978, such an approach is no longer meaningful and may actually be optimistic rather than conservative.

This is also a good example of an unnecessary and inappropriate difference between the extractive industries, given that the mining industry generally uses a prior three year average for SEC reporting purposes.

A key principle of the reporting system is that it should reflect the views (and hence actions) of the company. In this sense, the choice of price forecast should be left to the management of the company to determine. However, if monetary values of reported reserves/resources are also to be reported (which they should be), these should be presented on a standardised basis. The preferred solution would be to include a sensitivity analysis based on a range of mandated price assumptions (ideally specified no later than October 31<sup>st</sup> of each year).

#### **Question 11**

Yes, exclusions should be removed. A principles-based approach reflecting project maturity and expected sales should improve disclosure quality.

#### Question 12

Yes, exclusions should be removed, but some guidance is required on the definition of the sales/transfer point of the product, especially for integrated projects (such as LNG, bitumen upgrading or GTL).

#### **Question 13**

See answer to Question 12. For the last sentence in the question, the answer must surely be "no": one cannot predict or account for something that is "unforeseen".

#### **Question 14**

The reporting basis should reflect the business decision-making process, e.g. whether or not a project has been committed or not, and does not need to consider technological change explicitly. The companies reflect such changes in their decisions by moving projects to a higher maturity level as technological innovations are made.

#### **Question 15**

No, it would not be appropriate or practical to mandate third party evaluations. It is recommended that the Commission gives serious consideration to the system widely used in the mining sector, which requires a "Competent Person" (who could be an employee of the company or a third party) to confirm that the reserve or resource estimates are based on reasonable assumptions.

Please do not hesitate to contact me if you have any questions.

Yours sincerely,

James G. Ross Managing Director

## Selected publications:

- Common Reserve Definitions and Resource Classification for Minerals and Petroleum: Dream or Reality? LL.M. Dissertation, CEPMLP, University of Dundee, Scotland, 2006.
- Petroleum Resources Classification and Definitions, in SPE/WPC/AAPG Guidelines for the Evaluation of Petroleum Reserves and Resources, 2001.
- SPE/WPC/AAPG Resource Definitions as a Basis for Portfolio Management, SPE paper 68573.
- Booking Reserves, SPE paper 49178.
- The Philosophy of Reserve Estimation, SPE paper 37960.